JAN 2 1 2003 &

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	45
BARBEE, et al.) Group Art Unit: 1711	1,0
Serial No.: 10/092,128) Examiner: Rajguru	131/01 Re
Filed: March 6, 2002	Atty. Docket No. USC3CIPCO	N2
For: PROCESS FOR PREPARING HIGH BARRIER NANOCOMPOSITES)))	

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents Washington, D.C. 20231 on January 9, 2003.

Typed or printed name of person signing this certificate

Michael S. Kerns

Signature 2

TECHNOLOGY CENTER 1700

18127 21°3

INFORMATION DISCLOSURE STATEMENT TRANSMITTAL

January 9, 2003

Commissioner for Patents Washington, D.C. 20231

Sir:

Applicant hereby discloses the references listed on the attached Form PTO-1449 to the United States Patent and Trademark Office for the above-identified patent application. A copy of each of the references has not been submitted because the applicant believes that copies of these references have already been submitted in related and co-pending applications. Should the Examiner wish to have the Applicant provide copies of the art, Applicant can so provide.

01/23/2003 CV0111

00000096 10092128

01 FC:1806

180.00 GP

The submission of these references shall not serve as an indication that a search has been conducted on the claimed subject matter, nor shall the submission be deemed an admission that these references are, or are considered to be, material to the patentability of the above-identified patent application.

A check in the amount of \$180.00 is enclosed to cover the fee due under 37 C.F.R. \$1.17(p). Applicant believes that no other fee is due, however, if an additional fee is deemed to be due the Commissioner is hereby authorized to charge such fee to Deposit Account No. 20-1507.

Respectfully submitted,

TROUTMAN SANDERS LLP

Bv:

Michael S. Kerns Reg. No. 51,233

Attorney for Applicant

Troutman Sanders LLP Bank of America Plaza, Suite 5200 600 Peachtree Street, N.E. Atlanta, Georgia 30308-2216 Tel. No.: (404) 885-3470

Fax No.: (404) 962-6773

ļ.,

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

+

JAN 2 1 2003

RADEM!

ase type a plus sign (+) inside this box -

Substitute for form 1449A/PTO Complete If Known **Application Number** 10/092,128 INFORMATION DISCLOSURE **Filing Date** 03/06/2002 STATEMENT BY APPLICANT First Named Inventor BARBEE et al. **Group Art Unit** 1711 (use as many sheets as necessary) **RAJGURU Examiner Name** Sheet 10 of **Attorney Docket Number** USC3CIPCON2

				U.S. PATENT DO	CUMENTS	
Examiner Initials*	Cite No.1		Oocument Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A01_	6,447,860)	Mueller et al.	09-10-2002	
	A02	6,417,262	2	Turner et al.	07-09-2002	
	A03	6,407,155	5	Quian et al.	06-18-2002	
	A04	6,403,231		Mueller et at.	06-11-2002	
	A05	6,391,449		Lan et al.	05-21-2002	
	A06	6,384,121		Barbee et al.	05-07-2002	
	A07	6,376,591		Lan et al.	04-23-2002	*{
	A08	6,350,805		Korbee et al.	02-26-2002	-
	A09	6,254,803		Matthews et al.	07-03-2001	
	A10	6,232,388		Lan, et al.	05-15-2001	
	A11	6,156,835		Anderson et al.	12-05-2000	5 5
	A12	6,162,857		Trexler et al.	12-19-2000	200
	A13	6,120,860		Bowen et al.	09-19-2000	0 7
	A14	6,117,541		Frisk	09-12-2000	
	A15	6,084,019		Mataybas	07-04-2000	
	A16	6,071,988		Barbee et al.	06-06-2000	डिस्टिंग
	A17	6,057,396		Lan et al.	05-02-2000	~
	A18	6,060,549		Li et al.	05-09-2000	6
	A19	6,050,509		Clarey et al.	04-18-2000	
	A20	6,036,765		Farrow et al.	03-14-2000	

		Foreign Patent Document			PATENT DOCUME		Pages, Columns, Lines,	
Examiner Cite Initials No. 1		Office ³ Number ⁴		Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Documer	Date of Publication of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T ⁶
	A21	EP	0940430			09-08-1999		_
	A22	WO	99/38914			08-05-1999		
	A23	WO	99/15432			04-01-1999		
	A24	WO	98/53000			11-26-1998		
	A25	WO	98/29499			07/09/1998		
	A26	JP	10168305			06-23-1998		
	A27	EP	0846723			06-10-1998		
	A28	JP	10133013			05-22-1998		
	A29	JP	10077427			03-24-1998		
	A30	EP	0822163		Serrano et al.	02-04-1998		
Exami Signat				L		Date Considered		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.



Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

JAN 2 1 2003

TRADE

Complete If Known Substitute for form 1449A/PTO **Application Number** 10/092,128 03/06/2002 INFORMATION DISCLOSURE Filing Date BARBEE et al. STATEMENT BY APPLICANT First Named Inventor 1711 **Group Art Unit** RAJGURU **Examiner Name** (use as many sheets as necessary) USC3CIPCON2 Attorney Docket Number 10 Sheet of

			U.S. PATENT DO	CUMENTS	
Examiner Initials	Cite No.1	U.S. Patent Document Number Kind Code² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	B1	6,034,163	Barbee et al.	03-07-2000	
	B2	6,017,632	Pinnavaia et al.	01-25-2000	
	В3	5,993,769	Pinnavaia et al.	11-30-1999	
-	B4	5,972,448	Frisk et al.	10-26-1999	
	B5	5,952,093	Nichols et al.	09-14-1999	
	B6	5,942,320	Miyake et al.	08-24-1999	<u> </u>
	B7	5,916,685	Frisk et al.	06-29-1999	0
	B8	5,882,751	Occhiello et al.	03-16-1999	11
	B09	5,876,812	Frisk et al.	03-02-1999	0 2
· · · · · · · · · · · · · · · · · · ·	B10	5,849,830	Tipursky et al.	12-15-1998	0 %
	B11	5,830,544	Kerscher et al.	11-03-1998	<u> </u>
	B12	5,807,630	Christie et al.	09-15-1998	0.7
	B13	5,780,376	Gonzales et al.	07-14-1998	
	B14	5,747,560	Christiani et al.	05-05-1998	<u> </u>
	B15	5,728,764	Bauer et al.	03-17-1998	
	B16	5,665,454	Hosoi et al.	09-09-1997	
	B17	5,660,761	Katsumoto et al.	08-26-1997	<u> </u>
	B18	5,648,159	Sato	07-15-1997	
	B19	5,620,774	Etchu et al.	04-15-1997	
	B20	5,612,138	Kurts et al.	03-18-1997	

-	FOREIGN PATENT DOCUMENTS										
			Foreign Patent Docume	nt	1	Date of	Pages, Columns, Lines, Where Relevant				
Examiner Initials	Cite No. ¹	Office ³	Number ⁴	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Publication of Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T ⁶			
	B21	wo	98/01346			01-15-1998					
	B22	JP	10001608			01-06-1998					
	B23	wo	97/02323			01-23-1997					
	B24	wo	97/44384			11-27-1997					
	B25	wo	97/31973			09-04-1997					
	B26	wo	97/31057			08-28-1997					
	B27	wo	97/30950			08-28-1997					
	B28	JP	9217012			08-19-1997					
	B29	JP	9176461			07-08-1997					
	B30	EP	780340			06-25-1997		<u> </u>			

Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE ander the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

+

Substitute for form 1449A/PTO Complete If Known **Application Number** 10/092,128 INFORMATION DISCLOSURE **Filing Date** 03/06/2002 STATEMENT BY APPLICANT BARBEE et al. **First Named Inventor Group Art Unit** 1711 (use as many sheets as necessary) **Examiner Name** RAJGURU Sheet 10 of **Attorney Docket Number** USC3CIPCON2

			U.S. PATENT DO	CUMENTS	
Examiner Initials	Cite No.1	U.S. Patent Document Number Kind Code² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	C01	5,578,672	Beall et al.	11-26-1996	
	C02	5,552,469	Beall et al.	09-03-1996	
	C03	5,530,052	Takekoshi et al.	06-25-1996	
	C04	5,523,045	Kudert et al.	06-04-1996	
	C05	5,514,734	Maxfield et al.	05-07-1996	
	C06	5,454,865	Ginn et al.	10-03-1995	
	C07	5,434,000	Konagaya et al.	07-18-1995	
	C08	5,429,999	Nae et al.	07-04-1995	
	C09	5,414,042	Yasue et al.	05-09-1995	
	C10	5,385,776	Maxfield et al.	01-31-1995	0 6
	C11	5,382,650	Kasowski et al.	01-17-1995	0 1/4
	C12	5,374,306	Schlegel et al.	12-20-1994	5 0
	C13	5,371,051	Pope et al.	12-06-1994	6.7
	C14	5,340,884	Mills et al.	08-23-1994	
	C15	5,336,647	Nae et al.	08-09-1994	
	C16	5,334,241	Jordan	08-02-1994	- 93 3 (
	C17	5,314,987	Kim et al.	05-24-1994	7
	C18	5,273,706	Laughner	12-28-1993	0
	C19	5,248,720	Deguchi et al.	09-28-1993	
	C20	5,221,507	Beck et al.	06-22-1993	

			F	OREIGN	PATENT DOCUMENT	rs		
		Foreign Patent Document					Pages, Columns, Lines,	
Examiner Cite No. 1		Office ³	Number ⁴	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T ⁶
	C21	WO	97/17398			05-15-1997		
	_C22	EP	0761739			03-12-1997		
	_C23	JP	09048908			02-18-1997		
	C24	EP	747451			12-11-1996		
	C25	EP	681990			11-15-1996		
	C26	WO	96/25458			08-22-1996		
	C27	WO	96/08526			03-21-1996		
	C28	EP	0691376			01-10-1996		
	C29	EP	0691212			01-10-1996		
	C30	WO	95/14733			06-01-1995		

Examiner	Date
Signature	Considered

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

se type a plus sign (+) inside this box

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DEPARTMENT OF COMMERCE

U.S. Patent And Trademark Office: U.S. DE

substitute for form 1449A/PTO Complete If Known **Application Number** 10/092,128 INFORMATION DISCLOSURE **Filing Date** 03/06/2002 STATEMENT BY APPLICANT BARBEE et al. First Named Inventor 1711 **Group Art Unit** (use as many sheets as necessary) **Examiner Name** RAJGURU Sheet 10 USC3CIPCON2 of Attorney Docket Number

				U.S. PATENT DO	CUMENTS	
Examiner Initials	Cite No.1		ind Code ² if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	D01	5,206,284		Fukui et al.	04-27-1993	
	D02	5,164,460	_	Yano et al.	11-17-1992	
	D03	5,153,061		Cavagna et al.	10-06-1992	
	D04	5,153,062		Grolig et al.	10-06-1992	
	D05	5,149,485		Belcher	09-22-1992	
	D06	5,110,501		Knudson Jr. et al.	05-05-1992	
	D07	5,102,948		Deguchi et al.	04-07-1992	
	D08	5, 091,462		Fukui et al.	02-25-1992	
	D09	5,037,285		Kudert et al.	08-06-1991	*** C
	D10	5,034,252		Nilsson et al.	07-23-1991	
	D11	5,028,462		Matlack et al.	07-02-1991	2
	D12	5,011,534		Berube	04-30-91	O P
	D13	4,994,313		Shimizu et al.	02-19-1991	200
	D14	4,983,719		Fox et al.	01-08-1991	67
	D15	4,983,432		Bissot	01-08-1991	
	D16	4,957,980		Kobayashi et al.	09-18-1990	一 高 百
	D17	4,946,365		Kudert et al.	08-07-1990	当日
	D18	4,894,411		Okada et al.	01-16-1990	-7
	D19	4,889,885		Usuki et al.	12-26-1989	00
	D20	4,810,734		Kawasumi et al.	03-07-1989	

			F	OREIGN	PATENT DOCUMENT	TS .		,
Examiner Initials	Cite No. ¹	Office ³	Foreign Patent Docume Number 4	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	1.6
	D21	EP	650994			05-03-1995		
	D22	WO	95/06090			03-02-1995		
	D23	JP	7026123			01-27-1995		
	D24	WO	94/29378			12-22-1994		
	D25	WO	94/11430			05-26-1994		
	D26	EP	0590263			04-06-1994		
	_D27	wo	93/14922			08-05-1993		
	D28	WO	93/11190			06-10-1993		
	D29	EP	542266			05-19-1993		
	D30	wo	93/04125			03-04-1993		

Y-1		
Examiner	Data	
	Date	
Signature	I Committee a	
Digitature	Considered	i i
divine a second		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.



Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

nder the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	Substitute fo	or form 144	9A/PTO		Complete If Known		
					Application Number	10/092,128	
	INFOR	MATI(ON DISC	LOSURE	Filing Date	03/06/2002	
:	STATE	MENT	BY APP	LICANT	First Named Inventor	BARBEE et al.	
					Group Art Unit	1711	
	(use	as many s	heets as nece	essary)	Examiner Name	RAJGURU	
	Sheet	5	of	10	Attorney Docket Number	USC3CIPCON2	

			U.S. PATENT DO	CUMENTS	
Examiner Initials	Cite No.1	U.S. Patent Document Number Kind Code² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	E01	4,777,206	Rittler	10-11-1988	
	E02	4,769,078	Tso	09-06-1988	
	E03	4,742,098	Finlayson et al.	05-03-1988	
	E04	4,739,007	Okada et al.	04-19-1988	
	E05	4,725,466	Crass et al.	02-16-1988	
	E06	4,720,420	Crass et al.	01-19-1988	
	E07	4,680,208	Aoki et al.	07-14-1987	3.1
_	E08	4,677,158	Tso et al.	06-30-1987	C
	E09	4,676,929	Rittler	06-30-1987	
	E10	4,646,925	Nohara	03-03-1987	P 2 7
	E11	4,600,409	Campbell	07-15-1986	9 73 17
	E12	4,595,715	Kuze et al.	06-17-1986	2 2
	E13	4,546,126	Breitenfellner et al.	10-08-1985	Cf.
	E14	4,536,425	Hekal	08-20-1985	
	E15	4,517,112	Mardis et al.	05-14-1985	
	E16	4,482,695	Barbee et al.	11-13-1984	- 1 5 0
	E17	4,472,538	Kamigaito et al.	09-18-1984	-7
	E18	4,450,095	Finlayson	05-22-1984	0
	E19	4,442,163	Kuhner et al.	04-10-1984	
	E20	4,434,076	Mardis et al.	02-28-1984	

					PATENT DOCUMENT	TS .		
Examiner	Cite No.1	Foreign Patent Document		V (5)	Date of	Pages, Columns, Lines, Where Relevant		
Initials*		Office ³	Number 4	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Publication of Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	T ⁶
	E21	WO	93/04117			03-04-1993		
	E22	EP	459472			12-04-1991		
	E23	EP	398551			11-22-1990		
	E24	EP	295336			12-21-1988		
	E25	DE	3808623			10-06-1988		
	E26	DE	3806548			09-15-1988		
	E27	EP	278403			08-17-1988		
	E28	EP	261430			03-30-1988		
	E29	JP	62073943			04-04-1987		
	E30	EP	0202532			11-26-1986		

Examiner		Date	
Signature	_	Considered	1

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

+

Complete If Known Substitute for form 1449A/PTO **Application Number** 10/092,128 03/06/2002 INFORMATION DISCLOSURE **Filing Date** STATEMENT BY APPLICANT **First Named Inventor** BARBEE et al. **Group Art Unit** 1711 RAJGURU (use as many sheets as necessary) **Examiner Name** USC3CIPCON2 Sheet 10 **Attorney Docket Number** of

			U.S. PATENT DO	CUMENTS	
Examiner Initials	Cite No.1	U.S. Patent Document Number Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
-	F01	4,429,079	Shibata et al.	01-31-1984	
	F02	4,398,642	Okudaria et al.	08-16-1983	
	F03	4,393,007	Priester et al.	07-12-1983	
	F04	4,381,948	McConnell	05-03-1983	
	F05	4,239,826	Knott, II et al.	12-16-1980	
	F06	4,219,527	Edelman et al.	08-26-1980	
	F07	4,163,002	Pohl et al.	07-31-1979	
	F08	4,161,578	Herron	07-17-1979	$\overline{\mathbf{c}}$
	F09	4,133,802	Hachiboshi et al.	01-09-1979	<u> </u>
	F10	4,071,503	Thomas et al.	01-31-1978	و ر >
	F11	4,064,112	Rothe et al.	12-20-1977	0 23 .
	F12	4,018,746	Brinkmann et al.	04-19-1977	< 2
	F13	3,946,089	Furukawa et al.	03-23-1976	CE 7
	F14	3,876,552	Moynihan	04-08-1975	
	F15	3,843,479	Matsunami et al.	10-22-1974	m es
	F16	3,823,169	Staub	07-09-1974	2
	F17	3,879,283	Mercade	04-22-1975	7
	F18	3,792,969	Gertisser	02-19-1974	8
	F19	3,700,398	Cole, Jr.	10-24-1972	
	F20	3,646,072	Shaw	02-29-1972	

			Ą	OREIGN	PATENT DOCUMENT	`S		
Examiner Initials*	Cite No. ¹	Office ³	Foreign Patent Docume Number 4	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	F21	EP	186456			07-02-1986		
	F22	WO	84/03096			08-16-1984		
	F23	GB	2123014			01-25-1984		
	F24	JP	76029697			03-09-1976		
	F25	JP	75010196			04-18-1975		
	F26	JP	75005751			03-06-1975		
	F27	JP	75005735			03-06-1975		
	F28	JР	75001156			01-16-1975		
	F29	GB	1090036			11-08-1967		
	F30	wo	99/41299			08-19-1999		

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

ander the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO Complete If Known **Application Number** 10/092,128 INFORMATION DISCLOSURE Filing Date 03/06/2002 STATEMENT BY APPLICANT First Named Inventor BARBEE et al. **Group Art Unit** 1711 (use as many sheets as necessary) **RAJGURU** Examiner Name Sheet of 10 Attorney Docket Number USC3CIPCON2

			U.S. PATENT DO	CUMENTS	
Examiner Initials	Cite No.1	U.S. Patent Docume Number Kind Co (if know	de ² Name of Patentee or Applicant	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	G01	3,627,625	Jarrett	12-14-1971	riguies Appear
	G02	3,544,523	Maxion	12-01-1970	
	G03	3,514,498	Okazaki et al.	05-26-1970	
	G04	3,499,916	Berthold	03-10-1970	
	G05	3,391,164	Straley et al.	07-02-1968	
	G06	3,281,434	Turetzky et al.	10-25-1966	
	G07	3,232,934	Hoare	02-01-1966	The state of the s
	G08	3,125,586	Katz et al.	03-17-1964	<u></u>
	G09	3,076,821	Hoare	02-05-1963	
	G10	2,957,010	Straley et al.	10-18-1960	5 5 6
	G11	2,938,914	Joyce	05-31-1960	
	G12	2,924,609	Joyce	02-09-1960	2 2 1
	G13	2,737,517	Boyd	03-06-1956	
	G14	3,849,406	Basel et al.	11-19-1974	
	G15	2,531,427	Hauser	11-28-1950	- 명 당 년
	G16	2,966,506	Jordan	12-27-1960	
	G17	4,081,496	Finlayson	03-28-1978	70
	G18	4,105,578	Finlayson	08-08-1978	
	G19	4,116,866	Finlayson	09-26-1978	
	G20	4,208,218	Finlayson	06-17-1980	

			F	OREIGN	PATENT DOCUMENT	S		
	Cite No.1	Foreign Patent Document				Ť	Pages, Columns, Lines,	
Examiner Initials*		Office ³ Number ⁴		Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T ⁶
	G21	WO	0034393			06-15-2000		
	_G22	WO	0034378			06-15-2000		
	G23	EP	090787			04-21-1999		
	G24	EP	0822163					
	G25	EP	0899301			02-04-1998		
	G26	wo	93/04118			03-03-1999		
			25/04110			03-04-1993		
				 + 				
					_			

Evaminas			
Examiner		Date	
Ciamatan.		Date	
Signature		10	
		Considered	!
*EVAMINICD. Indiana	:C C		1

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for form 1449A/PTO Complete If Known **Application Number** 10/092,128 INFORMATION DISCLOSURE **Filing Date** 03/06/2002 STATEMENT BY APPLICANT First Named Inventor BARBEE et al. **Group Art Unit** 1711 (use as many sheets as necessary) **Examiner Name** RAJGURU Sheet **Attorney Docket Number** USC3CIPCON2

		1 7/0 2	U.S. PATENT DO	CUMENTS	
Examiner Initials	Cite No.1	U.S. Patent Document Number Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	H01	4,391,637	Mardis et al.	07-05-1983	11gares rippear
	H02	4,410,364	Finlayson et al.	10-18-1983	
	H03	4,412,018	Finlayson et al.	10-25-1983	
	H04	4,434,075	Mardis et al.	02-28-1984	
	H05	5,164,440	Deguchi et al.	11-17-1992	
	H06	10/072,759	Barbee et al.	11 17 1772	
	H07	10/144,427	Turner et al.		
	H08	10/145,833	Gilmer et al.		
					<u> </u>
					The state of the s
					+ - 1
					2 5 5
				 	
					7 0

				EOD TO CO				
				FOREIGN	PATENT DOCUMENT	rs	0	
			Foreign Patent Docur	nent			Pages, Columns, Lines,	
Examiner Initials*	Cite No. ¹	Office ³	Number 4	Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T ⁶
		\vdash						
		i I						
		 						
		-						
_								

Evenin			
Examiner		Date	
Signatura	· · · · · · · · · · · · · · · · · · ·	Date	1
Signature		Considered	
4737 A B 473 7000		Constacted	1

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

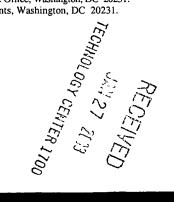
¹Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the twoletter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Compl Known Substitute for form 1449B/PTO **Application Number** 10/092,128 INFORMATION DISCLOSURE 03/06/2002 **Filing Date** STATEMENT BY APPLICANT First Named Inventor BARBEE et al. 1711 **Group Art Unit** RAJGURU (use as many sheets as necessary) **Examiner Name** USC3CIPCON2 10 **Attorney Docket Number** Sheet of

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials* Cite No.		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number)s), publisher, city and/or county where published.			
	I1	LEBARON et al., "Polymer-Layered Silicate Nanocomposites: an Overview," App. Clay Sci., 15, 11-29 (1999)			
	12	KE et al., "Crystallization, Properties, and Crystal Nanoscale Morphology of PET-Clay Nanocomposites," J. Appl. Polym. Sci., 71, 1139-1146 (1999)			
	13	GIANNELIS, "Polymer Layered Silicate Nanocomposites," Advanced Materials, 8, 29-35 (1996)			
	14	ORIAKHI et al., "Incorporation of poly(aerylic acid), poly(vinylsulfonate) and poly(styrenesulfonate) within layered double hydroxides," <i>J. Mazer Chem.</i> , 6, 103-107 (1996)			
	I5	MESSERSMITH et al., "Synthesis and Barrier Properties of Poly(t-Caprolactone)-Layered Silicate Nanocomposites," J. of Polym. Sci., 33, 1047-1057 (1995)			
	I6	SUGAHARA et al., "Clay-Organic Nano-Composite; Preparation of a Kaolinite - Poly(vinylpyrrolidone) Intercalation Compound," J. Ceramic Society of Japan, 100, 413-416 (1992).			
	17	YANO et al., "Synthesis and properties of polyimide-clay hybrid," ACS, Polymer Preprints, 32, 65-66 (1991)			
	18	FUKUSHIMA et al., "Swelling Behavior of Montmorillonite by Poly-6- Amide," Clay Minerals, 23, 27-34 (1988)			
	19	VERBICKY, Encyclopedia of Polymer Science and Engineering, 2 nd Edition, 12, 364-383 (1988)			
	I10	FUKUSHIMA et al., "Synthesis of an Intercalated Compound of Montmorillonite and 6-Polyamide," J. Inclusion Phenomana, 5, 473-482 (1987)			
	I11	OKADA et al., "Synthesis and Characterization of a Nylon 6-Clay Hybrid," ACS, Polymer Preprints, 28, 447-448 (1987)			

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

10 Soute	titute for form 144	OD/DTO		Comp	lete If Known	_
m 0:	titule for form 144	19 b /F10		Application Number	10/092,128	
	IFORMAT	ION DISC	CLOSURE	Filing Date	03/06/2002	
6 5'	INFORMATION DISCLOSURE STATEMENT BY APPLICANT	First Named Inventor	BARBEE et al.	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
DEMPH S				Group Art Unit	1711	
	(use as many	y sheets as ne	cessary)	Examiner Name	RAJGURU	
Shee	et 10	of	10	Attorney Docket Number	USC3CIPCON2	

Examiner Initials	Cite No.	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number)s), publisher, city and/or county where published.				
	J1	FAHN ET AL., "Reaction Products or Organic Dye Molecules with Acid-Treated Montmorillonite," Clay Minerals, 18, 447-458 (1983)				
	J2	GREENLAND, "Adsorption of Polyvinyl Alcohols by Montmorillonite," J. Colloid Sci., 18, 647-664 (1963)				
	J3	T. J. PINNAVAIA and TIE LAN, "Clay-Reinforced Epoxy Nanocomposites," Chem. Mater, 6, 2216 (1994)r				
	J4	Y. KUROKAWA, H. YASUDA, A. OYA, "Preparation of a Nanocomposite of Polypropylene and Smectite," <i>Mater. Sci. Letters</i> , 15, 1481 (1996)				
	J5	M. KAWASUMI, N. HASEGAWA, M. KATO, A. USUKI, and A. OKADA, "Preparation and Mechanical Properties of Polypropulene-Clay Hybrids," <i>Macromolecules</i> , 30, 6333 (1997)				
	J6	A. USUKI, M. KATO, A. OKADA, T. KURAUCHI, "Synthesis of Propylene-Clay Hybrid," J. App. Polym. Sci., 63, 137 (1997)	<u></u>			
	J7	C.O. SRIAKHI et al. J. Mater. Chem., 6, 103 (1996).				
		ТЕСНИ				
		7.797 S	i			
		ECHNOLOGY CENTER				
Exami	ner	Date				

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.